

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: FISH POND	Lake Area (ha):	8.09
Town: COLUMBIA	Maximum depth (m):	2.3
County: Coos	Mean depth (m):	1.2
River Basin: Connecticut	Volume (m ³):	97000
Latitude: 44°51'27" N	Relative depth:	0.7
Longitude: 71°28'52" W	Shore configuration:	1.39
Elevation (ft): 1395	Areal water load (m/yr):	29.38
Shore length (m): 1400	Flushing rate (yr ⁻¹):	24.50
Watershed area (ha): 375.3	P retention coeff.:	0.43
% watershed ponded: 0.6	Lake type:	natural w/dam

BIOLOGICAL:

		26 January 1999	4 August 1998
DOM. PHYTOPLANKTON (% TOTAL)	#1	NO WINTER PLANKTON	DINOBRYON 25%
	#2	ANALYZED	TABELLARIA 15%
	#3		CERATIUM 15%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			4.38
DOM. ZOOPLANKTON (% TOTAL)	#1		CONOCHILUS 58%
	#2		STLK PERITR CILIATE 12%
	#3		ASPLACHNA 9%
ROTIFERS/LITER			408
MICROCRUSTACEA/LITER			109
ZOOPLANKTON ABUNDANCE (#/L)			602
VASCULAR PLANT ABUNDANCE			Common
SECCHI DISK TRANSPARENCY (m)			2.1 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)		12.6	4.5
BACTERIA (E. coli, #/100 ml)	#1		
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m³) : None
Anoxic volume (m³) : None

CHEMICAL:

Lake: FISH POND

Town: COLUMBIA

	26 January 1999		4 August 1998		
DEPTH (m)	1.0		1.0		2.0
pH (units)	6.7		7.4		7.0
A.N.C. (Alkalinity)	15.4		38.9		22.8
NITRATE NITROGEN	0.29		< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.40		0.50		0.60
TOTAL PHOSPHORUS	0.015		0.017		0.019
CONDUCTIVITY (μ mhos/cm)	55.6		87.7		87.6
APPARENT COLOR (cpu)	48		65		68
MAGNESIUM			1.72		
CALCIUM			14.6		
SODIUM			1.5		
POTASSIUM			1.16		
CHLORIDE	< 2		< 2		< 2
SULFATE	5		4		4
TN : TP	46		29		32
CALCITE SATURATION INDEX			1.1		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1998

D.O. S.D. PLANT CHL TOTAL CLASS

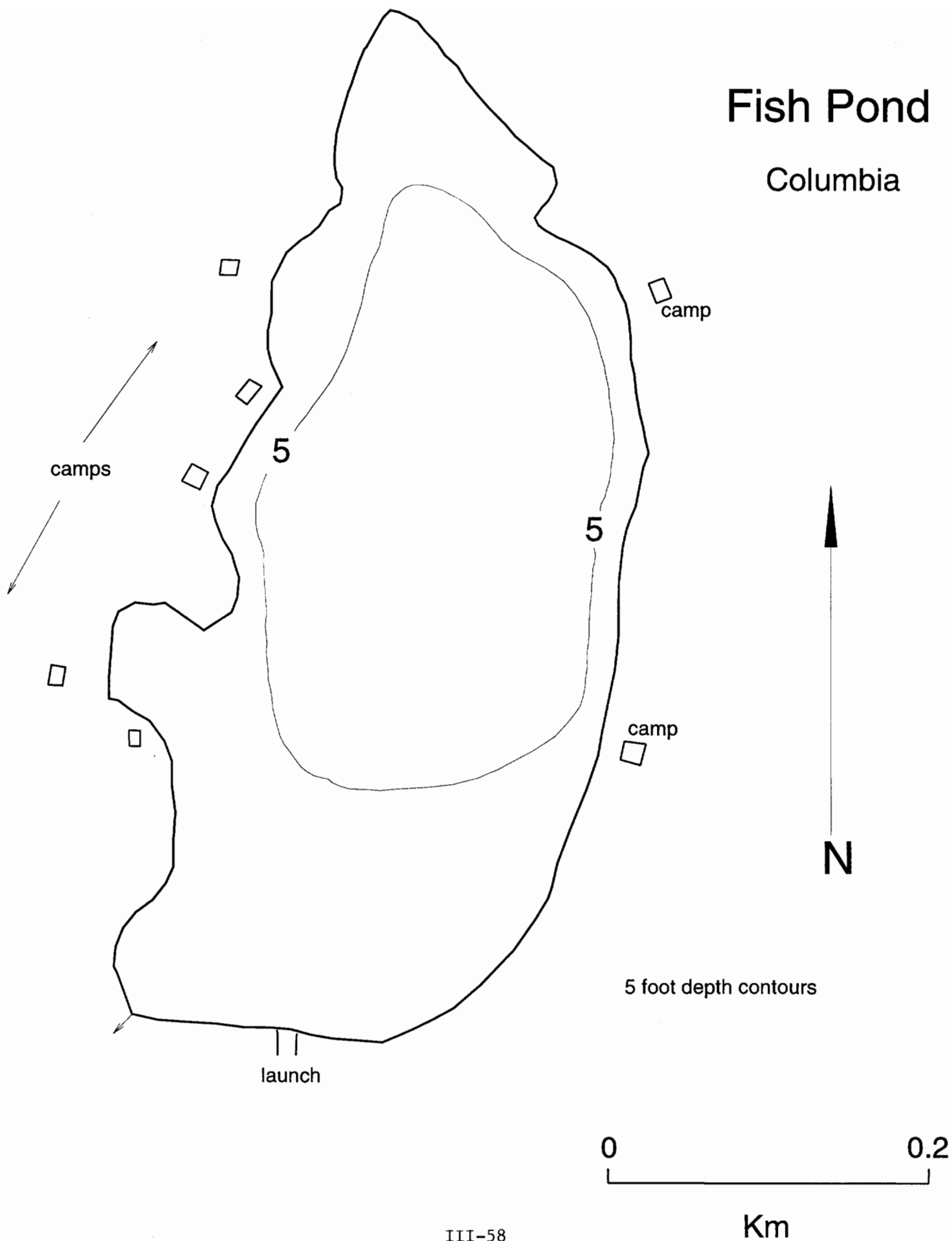
**	2	3	1	6	Meso.
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COMMENTS:

1. Fish Pond was previously surveyed and classified in 1985. There was no change in trophic class and little change in trophic quality between the two dates.
2. Alkalinity, along with pH and calcium, were high for NH lakes. This is not a bad thing and is due to the unique geology of the area.
3. Easy access road with F&G boat ramp and parking located at the south end of the pond.
4. Seven cottages on the pond; most were set back with good buffers but one had a green manicured lawn to the water.

Fish Pond

Columbia



[illegible]

Columbia



Km

AQUATIC PLANT SURVEY

LAKE: FISH POND

TOWN: COLUMBIA

DATE: 08/04/1998

Key	PLANT NAME		ABUNDANCE
	GENERIC	COMMON	
L	Spongilla	Freshwater sponge	Sparse
a	Potamogeton amplifolius	Bass weed	Common
W	Potamogeton pusillus	Pondweed	Common
T	Typha	Cattail	Scattered
A	Sagittaria	Arrowhead	Sparse
b	Scirpus	Bulrush	Sparse
N	Nymphaea	White water lily	Sparse
h	Hypericum	St. John's-wort	Sparse
F	Potamogeton natans	Floating-leaf pondweed	Sparse
g	Myrica gale	Sweet gale	Common
X		Sterile thread-like leaf	Sparse
U	Utricularia	Bladderwort	Sparse
C	Chara	Stonewort	Sparse
t	Callitriche	Water starwort	Sparse
S	Sparganium	Bur reed	Sparse
f		Filamentous algae	Sparse
G	Gramineae	Grass family	Sparse
d	Dulichium arundinaceum	Three-way sedge	Sparse
Y	Nuphar	Yellow water lily	Sparse

OVERALL ABUNDANCE: Common

GENERAL OBSERVATIONS:

1. Both *Potamogeton* species were found in dense patches around the pond.
2. Loons, fish, heron and osprey were observed.
3. Wetlands were present along the inlet stream at the northern end.